

Stillborn Enterprises: Calculating Expectation Damages Using Forensic Economics

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I. INTRODUCTION

Courts developed the common law within a dynamic economic, political, social, and scientific context. Their environment for decisionmaking grew out of perceived needs of commerce, the power and influence of competing interest groups, and the availability of valid methods of scientific measurement. The negligence action, for example, was a product of the economic developments of the early nineteenth century Industrial Revolution. Driven by a desire to protect the nascent manufacturing industry against liability for the inevitable injuries it caused as “the price of progress,”¹ common law courts required injured parties to prove a defendant’s lack of due care.² In this century, the torts pendulum has swung in the opposite direction. Courts have imposed strict liability on manufacturers whose defective products injure consumers unable to protect themselves.³

The common law changed as methods of scientific proof improved. For example, traditionally a person could not recover for emotional damage absent a “touching,” with the one exception of a common law assault.⁴ Courts doubted the genuineness of the plaintiff’s claimed emotional injury, and that skepticism resulted in a flat rule barring recovery. Courts changed the rule when psychological testimony gained acceptance.⁵

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¹ *Beatty v. Central Iowa Ry. Co.*, 12 N.W. 332, 334 (Iowa 1882).

² Prior to this development, defendants were held liable without proof of fault in an action in trespass for injuries caused directly to the plaintiff. *See WILLIAM L. PROSSER, THE LAW OF TORTS* § 7, at 29 (4th ed. 1971). Under a negligence standard, plaintiff would have to prove a failure of care on the part of the defendant, *see id.* § 30, at 143, potentially a substantial burden.

³ The California Supreme Court, in *Greenman v. Yuba Power Products, Inc.*, 377 P.2d 897 (Cal. 1962), stated that the purpose of imposing strict liability was “to insure that the costs of injuries resulting from defective products are borne by the manufacturers that put such products on the market rather than by the injured persons who are powerless to protect themselves.” *Id.* at 901.

⁴ *See PROSSER, supra* note 2 § 10, at 37-38.

⁵ “[W]hile physical manifestation of the psychological injury may be highly persuasive, such proof is not necessary given the current state of medical services and advances in psychology.” Scott D. Marrs, *Mind over Body: Trends Regarding the Physical Injury*

Common law contract principles also evolved over time. For example, at common law, contracts negotiated by minors were held unenforceable.⁶ Some courts later recognized that minors might have the capacity to participate in commerce and jettisoned the per se rule in favor of a multi-variable analysis, allowing the enforcement of promises by minors in certain instances.⁷

Yet despite the evolution of the law, courts have had (and continue to have) particular difficulty addressing contract damage issues involving new businesses that fail, the so-called "stillborn enterprises." A new business might not reach viability with a sustainable operating performance after the initial start-up as a result of a breach of contract. For example, a supplier might not provide needed goods and services; a source of capital might not provide promised financing; a contract partner might fail to provide necessary patents, licenses, or trademarks. When any of these parties fail to fulfill contract promises, a cause of action might arise.

The standard measure of damages for a breach of contract is the injured party's expectations.⁸ When a plaintiff is an on-going enterprise with an established operating performance, courts can, with some confidence, predict sales loss and costs caused by a contract breach. Expectation damages can be based on lost profits, with prior profits a reasonable measure of projected loss. In the stillborn enterprise case, however, the defendant's breach prevents the plaintiff's business (or a portion of plaintiff's business) from becoming fully established. The new enterprise does not have a record for sales, costs, and operating performance upon which a court could rely in estimating damages. Without this record upon which to base calculations, the court's range of values is quite broad due to a multitude of variables. How do you calculate expectation damages suffered by a company that has no prior profits? Under the traditional rule, known as the "new business rule," courts ruled that, in the absence of prior data, estimates of expectation damages were speculative,

Requirement in Negligent Infliction of Emotional Distress and "Fear of Disease" Cases, 28 TORT & INS. L.J. 1, 11 (1992) (quoting *James v. Lieb*, 375 N.W.2d 109, 116 (Neb. 1985)). Jurisdictions that abandoned the physical injury requirement have done so "in favor of a greater reliance on general tort law principles and the sophistication of jurors and the medical profession." *Id.* at 39.

⁶ See JOHN D. CALAMARI & JOSEPH M. PERILLO, *THE LAW OF CONTRACTS* § 8-2, at 232 (2d ed. 1977); see also SAMUEL WILLISTON, *A TREATISE ON THE LAW OF CONTRACTS* § 9.1 (Richard A. Lord ed., 4th ed. 1993).

⁷ See Steven Wolfe, *A Reevaluation of the Contractual Rights of Minors*, 57 UMKC L. REV. 145 (1988) (discussing the three jurisdictions that allow minors to contract and the problems with the per se rule).

⁸ [An] injured party has a right to damages based on his expectation interest as measured by (a) the loss in the value to him of the other party's performance caused by its failure or deficiency, plus (b) any other loss, including incidental or consequential loss, caused by the breach, less (c) any cost or other loss that he has avoided by not having to perform.

RESTATEMENT (SECOND) OF CONTRACTS § 347, at 112 (1981).

remote, and uncertain, and they would award no such damages.⁹

Commentators rightly criticized this judicial approach. Why should courts reward contract-breaking conduct by insulating a defendant from liability? It did not seem fair.¹⁰ Public policy should encourage promise keeping. New enterprises serve a critically important public purpose: they furnish capital to a free market economy. Public policy, evidenced here by the common law, should encourage risk taking. Undermining the sanctity of contracts certainly would chill entrepreneurial spirit.

Most states have now abandoned the traditional new business rule and adopted a uniform standard for recovery in *all* contract actions. The stillborn enterprise plaintiff must demonstrate lost profits with "reasonable certainty" in order to recover.¹¹ Courts reasoned that an absolute denial of contract recovery to stillborn enterprises was unfair and unnecessary.

The stillborn enterprise situation presents an interesting example of how

⁹ The courts faced a similar situation in calculating damages issues for a one-time event with no prior history. *See Chicago Coliseum Club v. Dempsey*, 265 Ill. App. 542 (1932). There, the court stated:

[T]he character of [a boxing match] was such that it would be impossible to produce evidence of a probative character sufficient to establish any amount which could be reasonably ascertainable by reason of the character of the [boxing match]. . . . Such an entertainment lacks utterly the element of stability which exists in regular organized business. . . .

. . . [T]he performance in question is not susceptible of proof sufficient to satisfy the requirements and . . . the damages, if any, are purely speculative.

Id. at 549–50.

¹⁰ "The new business rule . . . is a rule that artificially reduces the injured party's expectation interest. . . . By denying anticipated future profits, the new business rule automatically precludes one important aspect of the expectation interest and, thus, artificially increases the gain to the breaching party from breaking his promise." Bernadette J. Bollas, Note, *The New Business Rule and the Denial of Lost Profits "[M]en Keeping Their Promises When Neither Side Can Get Anything by the Breaking of Them"*, 48 OHIO ST. L.J. 855 (1987); *see also* Michael D. Weisman & Ben T. Clements, *Protecting Reasonable Expectations: Proof of Lost Profits for New Business*, 76 MASS. L. REV. 186, 188 (1991).

The new business rule has been subject to widespread criticism on several grounds. One of its most serious problems is that it 'has served to frustrate the overall policy of seeking to put the nonbreaching party in as good a position as he would have been had the contract been fully performed.' . . . [T]here is an inherent unfairness in denying a new business recovery because of the difficulty of proving lost profits where the difficulty is due to the defendant's wrongful conduct.

Weisman & Clements, *supra*, at 188 (quoting Frank L. Williamson, Comment, *Remedies—Lost Profits as Contract Damages for an Unestablished Business: The New Business Rule Becomes Outdated*, 56 N.C. L. REV. 693, 695 (1978)).

¹¹ *See infra* Part II.

the common law developed in response to heightened judicial sensitivity to fairness concerns. It also presents an opportunity to discuss the use of the expert testimony of a forensic economist and a legal accountant in proving expectation damages. In this Article, we first examine the historical basis for the no-recovery rule and the reasons asserted by the courts when they jettisoned the traditional approach.¹² We briefly sample cases to show the methods of proof courts have found suitable to prove damages with "reasonable certainty."¹³ Although there was a good policy reason for the courts to abandon a per se rule of no liability, courts have not always found adequate evidence upon which to predict loss of profits.

We now have available sophisticated econometric tools for projecting future loss in new business cases, and we shall demonstrate how that social science methodology, using the techniques of forensic economics and legal accounting, can

be employed to prove expectation damages in the stillborn enterprise case using two cases as examples.¹⁴ In this way, policy-driven reforms of the traditional common law can proceed with greater confidence. This scenario also presents an excellent example of how courts and lawyers might use sophisticated economic analyses to improve the quality of decisionmaking.

Courts increasingly use statistical tools in cases of alleged employment discrimination, antitrust violations, and similar circumstances where data patterns must be analyzed.¹⁵ Lawyers have not always been comfortable working with social science experts, however. Lawyers would do well to understand the basic principles of forensic economics in order to present them effectively and challenge them when appropriate protocols are not followed.

II. THE HISTORY OF THE NEW BUSINESS RULE

The traditional new business rule has gradually disappeared from American jurisprudence.¹⁶ What was once an absolute bar to recovery of lost profits for unestablished businesses has, in most jurisdictions, been relegated to an

¹² See *infra* text accompanying notes 16–44.

¹³ See *infra* text accompanying notes 45–79.

¹⁴ See *infra* text accompanying notes 84–91.

¹⁵ See Daniel L. Rubinfeld, *Econometrics in the Courtroom*, 85 COLUM. L. REV. 1048, 1048 (1985).

The use of statistical methods for resolving disputes has found increasing acceptance within the adversary system. This greater acceptance of statistics has opened the door to law-related econometric studies, particularly in connection with the use of multiple regression models. . . . [T]he most frequent uses of multiple regression have been in cases of sex and race discrimination and antitrust violation.

Id.

¹⁶ See ROBERT L. DUNN, RECOVERY OF DAMAGES FOR LOST PROFITS § 4.2 (3d ed. 1987).

evidentiary issue at trial.¹⁷ The decline of the rule is largely attributed to changes in the American economy, judicial ideology, and the gradual acceptance of "scientific evidence" as a method of proof.¹⁸

Much like the negligence standard, the new business rule originally developed in the nineteenth century as a means of assisting *established* businesses to grow.¹⁹ The prevailing rule for recovery of expectation damages required proof of loss to a "reasonable certainty."²⁰ Because lost profits could not be proven in the absence of a history of profits,²¹ new businesses were barred from recovery under this standard. Mere "speculation" or "conjecture" would not suffice.²²

¹⁷ See *id.*

¹⁸ See Williamson, *supra* note 10, at 723 ("The relaxation of judicial restrictions upon economic evidence represents, to some extent, a conscious recognition of the increasing reliability of business forecasting."); Note, *Lost Profits for Unestablished Businesses: Should Virginia Retain the New Business Rule?*, 67 VA. L. REV. 431, 435-36 (1981) [hereinafter *Unestablished Businesses*] ("The increasing acceptance of economic evidence reflects judicial recognition of business forecasting techniques."); see, e.g., *Houston Exploration, Inc. v. Meredith*, 728 P.2d 437, 438 (Nev. 1986) ("The history of Nevada's law concerning the recovery of lost profits for a new business venture reflects an evaluation consistent with an increasing sophistication in economic forecasting.").

¹⁹ See Bollas, *supra* note 10, at 856.

²⁰ Bollas, *supra* note 10, at 857; see also Williamson, *supra* note 10, at 693 ("[T]he 'new business rule' is the most frequently invoked corollary of the more general doctrine that damages must be proven with certainty.").

Under the traditional analysis, these uncertainties regarding the application of certainty requirement were not relevant to claims for lost profits brought by an unestablished business. This is because, as a corollary to the certainty requirement, the general rule was that a new business could not recover lost profits as a matter of law.

Weisman & Clements, *supra* note 10, at 188.

²¹ See Williamson, *supra* note 10, at 693; *Unestablished Businesses*, *supra* note 18, at 433 ("Courts adopting a per se [new business] rule make an implicit judgment that lost profits can be proven with reasonable certainty *only* by a history of past profits."); Note, *The Requirement of Certainty in the Proof of Lost Profits*, 64 HARV. L. REV. 317, 319 (1950) ("Inability to rely upon past history of profits has been most important in barring recovery for new businesses which had not built up such a record before the defendants' wrongs took place."); see also *Sambo's of Ohio, Inc. v. City Council of Toledo*, 466 F. Supp. 177, 181 (N.D. Ohio 1979) ("Only where the evidence established a history of profitable operations, followed by the actionable wrong and a diminution of profits, can there be recovery."); *Brenneman v. Auto-Teria, Inc.*, 491 P.2d 992, 994 (Or. 1971) ("If the business has not operated long enough to establish a reliable record of profits, the jury will not be permitted to speculate upon the probable success of the particular business alleged to be harmed.") (quoting *Buck v. Mueller*, 351 P.2d 61, 67 (1960)). See generally 22 AM. JUR. 2D *Damages* § 627 (1964).

²² See *Fredonia Broadcasting Corp. v. RCA Corp.*, 569 F.2d 251, 259 (5th Cir. 1978) ("[P]rospective profits from a new enterprise which has no history of profits are too remote and speculative to be included in compensatory damages.") (citations omitted); *Sambo's*,

Courts distrusted juries,²³ worrying that the award of excessive damages would interfere with a growing economy.²⁴ The courts believed that participants in a fluid free market needed the opportunity to use efficient contract breaches,²⁵ that businesses should be able to breach a contract to pursue a more profitable venture. Public policy necessitated the predictability of the non-breaching party's damages as an absolute prerequisite to the free movement of capital. The breaching party had to determine whether the benefits of the breach were worth the costs.²⁶ Juries, entrusted with determining lost profits, disturbed this predictability.

Determining lost profits entailed an evaluation of many factors.²⁷ Judges were concerned that juries were not qualified to evaluate those factors accurately because new businesses lacked a history of past profits.²⁸ Sympathetic and untutored juries could create windfalls for the non-breaching

466 F. Supp. at 181; *Taylor v. Shoemaker*, 38 So. 2d 895, 899 (Ala. App. 1948) (quoting 15 AM. JUR. *Damages* § 157 (1938) for the proposition that "[t]he prospective profits of a new business or enterprise are generally regarded as being too remote, contingent, and speculative to meet the legal standard of reasonable certainty. . . ."); *China Doll Restaurant v. Schweiger*, 580 P.2d 776, 780 (Ariz. Ct. App. 1978) ("It is the general rule that loss of profits growing out of a breach of contract and resulting to an unestablished business, is of too uncertain a character to constitute a basis for the computation of damages for the breach."); *Evergreen Amusement Corp. v. Milstead*, 112 A.2d 901, 904 (Md. 1955) ("[L]oss of profits from a business which has not gone into operation may not be recovered because they are merely speculative and incapable of being ascertained. . . ."); *Hickman v. Coshoctan Real Estate Co.*, 15 N.E.2d 648, 650 (Ohio App. 1938) ("[P]rospective profits of a new . . . business or one merely in contemplation are too uncertain and speculative to form a basis for recovery . . .") (quoting Annotation, *Measure of Damages for Breach of Contract Preventing Operation of Non-Industrial Business in Contemplation but Not Established or in Actual Operation*, 99 A.L.R. FED. 938 (1935)); see generally, 22 AM. JUR. 2D *Damages*, *supra* note 21, § 627.

²³ See *Williamson*, *supra* note 10, at 696-97.

²⁴ See *id.*; see also *Bollas*, *supra* note 10, at 857.

²⁵ The economic philosophy of free enterprise "necessitated limitations on the size of damage awards because entrepreneurs could not be encouraged to shift their capital to more profitable ventures if breach of contract were punished severely." *Bollas*, *supra* note 10, at 858. The concept of efficient breaches "encouraged entrepreneurs to move easily from an unprofitable enterprise to a more profitable one, and at least in theory, led to economic growth." *Id.* at 857 (emphasis added).

²⁶ See *id.* at 857.

²⁷ Some of the factors that might have been used to determine lost profits included whether the business ever opened, its location, relevant economic or market conditions, the type of business, the availability of finances, the reputation of the entrepreneur, publicity, similarities to other businesses, and the uniqueness of the product. See generally *Todd R. Smyth*, Annotation, *Recovery of Anticipated Lost Profits of New Business: Post-1965 Cases*, 55 A.L.R. 4TH 507 (1987).

²⁸ The new business rule was initially premised on the assumption that the issue for lost profits should be removed from jury consideration. The argument rested, in large part, on distrust of jurors as the "ultimate arbiters of contract damage awards." Jurors were not considered competent to handle such issues. See *Bollas*, *supra* note 10, at 865.

party, discouraging efficient business decisions, while throttling market expansion.²⁹

Courts also expressed concern about the impact of proving a new business's lost profits on court time and resources.³⁰ Absent profit histories, proving lost profits imposed substantial transaction costs:

Evidence of lost profits when not based on records of past profits is likely to be exceedingly complex, entailing, among other things, expert testimony by accountants and business economists, introduction of business records and such documents as marked surveys, testimony by competitors, complicated statistical analysis and mathematical calculations of profits projections and present value.³¹

Each party would need experts to comment on profit expectancy.³² The complexity of the material raised issues of evidence admissibility.³³ Rather than tackle the new challenges, courts favored the *per se* bar to damage recovery for new businesses because it had the "effect of avoiding expensive protracted litigation."³⁴

By the 1970s, courts began to recalibrate their free market analysis. Courts reconsidered the effect of the new business rule on the primary conduct of non-breaching parties. The new business rule ran contrary to the general contractual principle that an injured party should receive an award based on expectation interests.³⁵ "Where one sustained a loss by a breach of contract action, he is

²⁹ See *supra* notes 23–26 and accompanying text.

³⁰ See *Bollas, supra* note 10, at 867.

[A] justification for the *per se* new business rule is that it reduces uncertainty, promotes judicial economy, and avoids the need for extensive evidence concerning the failed business and alternative measures of damages. In fact, one commentator argues that the ends of efficiency and judicial economy obtainable under a *per se* application of the new business rule outweigh any benefits of allowing the plaintiff to try to prove lost profits with reasonable certainty.

Id.

³¹ *Williamson, supra* note 10, at 706; see also *Unestablished Businesses, supra* note 18, at 436–37 ("The *per se* [new business rule] avoids the costs and complexity that accompanies the introduction of evidence of lost profits not based on records of past profits. The compilation and presentation of expert business testimony required by the evidentiary approach can be both expensive and time consuming.").

³² "As a matter of the law of evidence, much of the economic evidence [necessary for a lost profit analysis] would not be admissible without expert participation." *Williamson, supra* note 10, at 726.

³³ See generally *id.* at 722–29 (discussing the role of experts and the evidentiary issues that arise from expert participation in determining lost profits for new businesses).

³⁴ *Williamson, supra* note 10, at 704.

³⁵ See *Guard v. P & R Enters., Inc.*, 631 P.2d 1068, 1071 (Alaska 1981) ("The purpose of awarding damages for a breach of contract is to put the injured party in as good a position as that party would have been had the contract been fully performed.") (citations

entitled to have just compensation commensurate with his loss.”³⁶ The new business rule prevented an injured party from being made “whole” because the courts would not allow proof of what “whole” meant.

The patent unfairness of the new business rule catalyzed courts to abandon the per se bar. In *Chung v. Kaonohi Center Co.*,³⁷ for example, the Hawaii Supreme Court stated that although,

[o]ther courts, when faced with [new businesses], have precluded recovery as a matter of law, reasoning that absence of prior income and expense experience render[ed] anticipated profits too speculative to meet the standard of reasonable certainty.

. . . In our opinion, it would be *grossly unfair* to deny a plaintiff meaningful recovery for lack of a sufficient “track record” where the plaintiff has been prevented from establishing such a record by defendant’s actions.³⁸

Under the traditional new business rule, courts only valued the free movement of capital by established businesses. Investment in economic growth required an even-handed treatment of new businesses, lest courts chill investment in new ventures. As the Kansas Supreme Court stated in *Vickers v. Wichita State University*:³⁹

Strict application of the certainty doctrine would place a new business at a substantial disadvantage. To hold recovery is precluded as a matter of law merely because a new business is newly established would encourage those

omitted). “[T]he new business rule has served to frustrate the overall remedial policy of seeking to put the non-breaching party in as good a position as he would have been had the contract been fully performed.” Williamson, *supra* note 10, at 695. “The new business rule has been subject to widespread criticism on several grounds. *One of its most serious problems* is that it ‘has served to frustrate the . . . remedial policy of . . . put[ting] the non-breaching party in as good a position as he would have been had the contract been fully performed.’” Weisman & Clements, *supra* note 10, at 188 (emphasis added) (quoting Williamson, *supra* note 10, at 695).

³⁶ *Chung v. Kaonohi Ctr. Co.*, 618 P.2d 283, 290 (Haw. 1980) (quoting Ferreira v. Honolulu Star-Bulletin, 356 P.2d 651, 655 (Haw. 1960)).

³⁷ 618 P.2d 283 (Haw. 1980).

³⁸ *Id.* at 291 (emphasis added); see also *Rancho Pescado, Inc. v. Northwestern Mut. Life Ins. Co.*, 680 P.2d 1235, 1245 (Ariz. App. 1984) (“We believe it would be patently unfair to deny damages to a business where they have been proved with reasonable certainty merely because the business venture was newly established.”); cf. *Guard*, 631 P.2d at 1072 (“[I]f profits could be shown with reasonable certainty, ‘there is no reason to penalize the enterprise of the founder of a new business by denying him his remedy for losses occasioned by the default of the defendant.’”) (quoting Ferrell v. Elrod, 469 S.W.2d 678, 686 (Tenn. Ct. App. 1971)).

³⁹ 518 P.2d 512 (Kan. 1974).

contracting with such a business to breach their contracts. The law is not so deficient.⁴⁰

By the 1970s and early 1980s, courts began to conclude that the traditional per se bar did not promote societal economic goals evenly. How then were courts to handle the difficult damage calculation issue? Was the calculation of damages to new businesses no longer "speculative"? Courts concluded that the particular circumstances of some cases allowed for proof of lost profits with some degree of certainty.⁴¹ They found no basis to exclude *all* cases involving new businesses because *some* cases made calculating lost profit difficult. Judicial recognition of the unfairness of a per se bar sparked the transformation of the new business rule from a rule of law to a rule of evidence.⁴²

Under prevailing modern case law, new businesses can recover lost profits

⁴⁰ *Id.* at 517; *see also* Morgan v. Southern Bell Tel. Co., 466 So. 2d 107, 116 (Ala. 1985) ("To disallow damages unless absolutely *certain* would encourage breach of contract with new businesses and with those whose profits fluctuate.").

⁴¹ *See Vickers*, 518 P.2d at 517 ("The evidence necessary in establishing lost future profits with reasonable certainty 'must depend in a large measure upon the circumstances of the particular case. . . .'" (quoting, Note, *The Requirement of Certainty in the Proof of Lost Profits*, 64 HARV. L. REV. 317, 319 (1950)); *accord* Wyoming Bancorporation v. Bonham, 563 P.2d 1382, 1386 (Wyo. 1977); *see also* Short v. Riley, 724 P.2d 1252, 1254 (Ariz. App. 1986) ("When evidence is available to furnish a reasonably certain factual basis for computation of probable losses, recovery cannot be denied even though a new business venture is involved.") (citations omitted); Kreedman & Co. v. Meyers Bros. Parking-Western Corp., 130 Cal. Rptr. 41, 49 (Cal. Ct. App. 1976) (stating that the new business rule was "not a hard and fast one"—"[t]he issue is, rather, whether the damages can be calculated with reasonable certainty.") (citations omitted); Cardinal Consulting Co. v. Circo Resorts, Inc., 297 N.W.2d 260, 267 (Minn. 1980) ("What is important [in lost profit analysis for new businesses] is that the loss be established with reasonable certainty, and this depends upon the circumstance of the particular case.") (citations omitted); AGF, Inc., v. Great Lakes Heat Treating Co., 555 N.E.2d 634, 639 (Ohio 1990) ("In Ohio . . . a new business may recover lost profits in a breach of contract action but such lost profits must be established with reasonable certainty."); Smith Dev. Corp. v. Bilow Enter., 308 A.2d 477, 483 (R.I. 1973) (recognizing that where the existence of a loss is established, absolute certainty as to the amount is not required—the jury only needs to be guided by some rational standard); Barbier v. Barry, 345 S.W.2d 557, 563 (Tex. Civ. App. 1961) ("Lost profits will not be denied merely because a business is new if factual data is available to furnish a basis for computation of probable losses."). *See generally* 22 AM. JUR. 2D *Damages*, *supra* note 21, § 627.

⁴² *See Fera v. Village Plaza, Inc.*, 242 N.W.2d 372, 373–74 (Mich. 1976) ("[The new business rule] is merely an application of the doctrine that 'in order to be entitled to a verdict . . . for damages for breach of contract, the plaintiff must lay a basis for a reasonable estimate of the extent of his harm. This issue becomes one of sufficiency of proof.'" (citation omitted); *cf.* John D. Copanos & Sons, Inc. v. McDade Rigging & Steel Erection Co., 403 A.2d 402, 405 (Md. Ct. Spec. App. 1979) ("The real concern in considering lost profits as an element of damages is not whether the business is old or new, but rather whether the anticipated profits can be shown with reasonable certainty so that the evidence rises above speculation or conjecture.").

if they meet the customary standard of the lost profits analysis—proof of loss to a “reasonable certainty.”⁴³ A profit history, once an absolute requirement, is now seen as *one* method to prove lost profits, but not the only method.⁴⁴

III. JUDICIAL EXPERIENCE IN THE CALCULATION OF EXPECTATION DAMAGES FOR STILLBORN ENTERPRISES

With the demise of the absolute bar to recovery, how have courts calculated the damage suffered by a new business? As in all contract cases, courts first must find that the breach of a valid contract resulted in the loss of prospective profits.⁴⁵ They then searched for a “rational basis”⁴⁶ upon which to calculate lost profits with “reasonable certainty.”⁴⁷ Their search at times has been successful, other times in vain. A sampling of the evidence reviewed by the courts will illustrate this point.

A. Defendant's Precontract Projections

Courts have relied on evidence prepared by one or both parties prior to entering into a contract as a basis for calculating lost profits with “reasonable certainty.” In *Perma Research & Development Co. v. Singer Co.*,⁴⁸ for example, Perma assigned Singer the patent rights to an anti-skid device for automobiles, and Singer defaulted on its agreement to use its best efforts in perfecting and marketing the patented device.⁴⁹ In the subsequent litigation on the issue of damages, Singer argued that even if major car manufacturers

⁴³ Although some jurisdictions still follow the bright-line new business rule, these courts, rather than abandoning the rule, have created various exceptions to avoid the rule's harsh results. See *Bollas*, *supra* note 10, at 860. Some of the methods used to circumvent the rule have been to either narrow the scope of the term “new business” or to recharacterize the business as an “existing” or “established” business. For example, in *G.M. Brod & Co. v. U.S. Home Corp.*, 759 F.2d 1526 (11th Cir. 1985), the court considered a business an established business even though it had only been in existence for three months.

⁴⁴ See *Vickers*, 518 P.2d at 517 (“Past profitability of a particular business is not . . . the only method of proving lost future profits.”).

⁴⁵ See, e.g., *Hendricks & Assoc., Inc. v. Daewoo Corp.*, 923 F.2d 209, 214–16 (1st Cir. 1991); *AGF*, 555 N.E.2d at 634.

⁴⁶ *Perma Research & Dev. Co. v. Singer Co.*, 402 F. Supp. 881, 898 (S.D.N.Y. 1975); see also *Harsha v. State Sav. Bank*, 346 N.W.2d 791 (Iowa 1984); *John Hetherington & Sons, Ltd. v. William Firth Co.*, 95 N.E. 961 (Mass. 1911); *Charles R. Combs Trucking, Inc. v. International Harvester Co.*, 466 N.E.2d 883 (Ohio 1984); *Drews Co. v. Ledwith-Wolfe Assoc. Inc.*, 371 S.E.2d 532 (S.C. 1988).

⁴⁷ See RESTATEMENT (SECOND) OF CONTRACTS § 352 cmt. b (1981) (“[A] new business may establish lost profits with reasonable certainty through the use of such evidence as expert testimony, economic and financial data, market surveys and analyses, business records of similar enterprises, and any other relevant facts.”).

⁴⁸ 402 F. Supp. 881 (S.D.N.Y. 1975).

⁴⁹ See *id.* at 884–86.

selected Perma's anti-skid device, when compared in price to a similar device already selected by Ford, the Perma device would likely have enjoyed limited market success.⁵⁰ Prior to entering into the contract, however, Singer had reviewed several reports that predicted favorable projected sales of the device in the secondary automobile market.⁵¹ The court ruled that the projected figures contained in these reports supplied an appropriate basis for computing damages.⁵²

B. Comparisons with Similar Enterprises

Courts have found that a party's lay estimate of lost profits may meet the "reasonable certainty" standard if a comparison is made to similar enterprises using complete data. In *Pena v. Ludwig*,⁵³ plaintiff Ludwig, the owner of a hairstyling business, contracted with Pena to remodel a building she intended to use as a hairstyling shop and later sued Pena for breach of warranties. With her former husband, Ludwig had co-owned a shop located around the corner from the building on which Pena started work. As a result of her divorce, Ludwig lost that shop and decided to open a new one nearby. A witness for Ludwig, an owner of a wholesale beauty supply business, testified that she was "very, very business minded," "an expert," and "very, very smart," and that the two shops located near each other would have had similar profits. The court said that Ludwig used a "reasonable methodology," citing the profits from the former shop owned with her husband as the basis for estimating the profits lost by her new shop due to Pena's breach.⁵⁴

By comparison, in *Drews Co., Inc. v. Ledwith-Wolfe Associates, Inc.*,⁵⁵ a building owner contracted to convert a building into a restaurant.⁵⁶ After several delays, change orders, and a general disagreement over the quality of the work, the contractor sued the owner for labor and materials used in its partial renovation.⁵⁷ The owner counterclaimed for breach of contract, claiming lost profits incurred by the delay in opening the restaurant.⁵⁸ As evidence of lost profits, the owner submitted the restaurant's gross profits made during the first eleven months of operation after construction was ultimately

⁵⁰ See *id.* at 899.

⁵¹ See *id.* at 900.

⁵² See *id.* at 901-02. Defendant's market expert projected sales of two hundred thousand devices in the first five years of the ten year contract, and the court decided that it was "eminently rational" to expect the defendant would maintain that level for the second five years as well. Given that the contract specifically provided for the amount of royalty payments based on sales (ten percent for five years, five percent for five years), the court computed the expectation damages. See *id.*

⁵³ 766 S.W.2d 298 (Tex. Ct. App. 1989).

⁵⁴ *Id.* at 304.

⁵⁵ 371 S.E.2d 532 (S.C. 1988).

⁵⁶ See *id.* at 533.

⁵⁷ See *id.*

⁵⁸ See *id.*

completed by another contractor.⁵⁹ The owner did not submit corresponding figures for the overhead or operating expenses of the restaurant, but testified that he would have expected at least a third of gross profits to be net profit.⁶⁰ Although the court used the case as the opportunity to repudiate the new business rule, it overturned the jury verdict for damages. The court stated that, "unsupported by any standard or fixed method for establishing net profits," the owner's subjective expectations were insufficient to provide a jury with a basis for calculating lost profits with reasonable certainty.⁶¹

C. *Expert Testimony*

In general, courts have been receptive to proof offered by experts in estimating damages. In an Iowa case, *Harsha v. State Savings Bank*,⁶² a bank failed to lend money promised to the plaintiff to open a livestock feed business.⁶³ A "well-qualified" expert in the livestock feed business estimated lost profits caused by the breach and "carefully explained to the jury the nature and source of the facts he relied on in formulating his opinion" and how he "took into account factors other than financing, such as the newness of the business and the effect of proper management and work habits on profitability."⁶⁴ The expert's conservative projections of future profits, assuming the bank had provided the loan as agreed, and the evidence that the plaintiff was "willing to put sufficient effort into the business" if management skills were lacking combined to meet the "reasonable certainty" standard.⁶⁵

Similarly, in *Lee v. Joseph E. Seagram & Sons, Inc.*,⁶⁶ the defendant Seagram, a distiller, breached an agreement with plaintiffs to obtain for them a new liquor distributorship.⁶⁷ Plaintiffs offered testimony by a certified public accountant of a mathematically sophisticated, yet reasonably comprehensible, measure of lost return occasioned by defendant's breach.⁶⁸ The jury returned a lost profits verdict; the Court of Appeals affirmed and ruled the method of proof adequate, stating that defendant must bear the risk of uncertainty created by its conduct, which had made a more precise estimate of damages difficult to determine.⁶⁹

Not all courts have appreciated the value of expert testimony on this issue, however. In *Kenford Co. v. County of Erie*,⁷⁰ plaintiff conveyed land to the

⁵⁹ See *id.* at 536.

⁶⁰ See *id.*

⁶¹ *Id.*

⁶² 346 N.W.2d 791 (Iowa 1984).

⁶³ See *id.* at 793-94.

⁶⁴ *Id.* at 798.

⁶⁵ *Id.*

⁶⁶ 552 F.2d 447 (2d Cir. 1977).

⁶⁷ See *id.* at 454-55.

⁶⁸ See *id.*

⁶⁹ See *id.* at 455 (citations omitted).

⁷⁰ 489 N.Y.S.2d 939 (App. Div. 1985).

county in exchange for the county's promise to construct a domed sports stadium from which plaintiffs would receive significant financial benefit.⁷¹ The county ultimately abandoned the project, and plaintiffs sued for damages, including loss of profits on the management portion of the contract.⁷² The plaintiff's expert prepared a series of projections based on the experience of other domed sports facilities and an analysis of the market in the area in which the stadium was to be built.⁷³ The expert estimated the number of events that would be held at the stadium annually, the average ticket price per event, the anticipated attendance, and offered an approximation of what each attendee would spend on parking and concessions.⁷⁴ He then estimated the expenses of running the stadium, using a flat fee figure for salaries and basing other expenses, such as advertising and legal fees, on a percentage of gross revenue.⁷⁵ The court noted that unlike other cases that permitted statistical analyses to support an award of lost profits to a new business, the expert's estimate was "full of conjecture"—namely, how many events would be held, how many attendants, how much each attendant would spend, etc.⁷⁶ None of these events were certain to occur, and it was "not inconceivable" that the plaintiff would have lost money on the deal.⁷⁷ The court contrasted this array of variables with cases that involved only one variable: for example, an estimate of the number of products that would have been sold had there not been a breach.⁷⁸ Because the court could find no cases involving an estimation of business expenses not based on expenses of sufficiently similar businesses, it rejected the expert's entire estimate of lost profits.⁷⁹

⁷¹ *See id.* at 941–42.

⁷² *See id.* at 942.

⁷³ *See id.* at 947.

⁷⁴ *See id.*

⁷⁵ *See id.*

⁷⁶ *Id.* at 948.

⁷⁷ *Id.*

⁷⁸ *See id.* at 947–48, n.9 (citing several cases that involved plaintiff's grant to defendant of exclusive rights to sell or market plaintiff's product). Statistical analyses were used to estimate the number of products that would have been sold, taking into account market forces, etc. Particularly notable in these cases is that market and sales projections are often prepared by one or both parties well in advance of litigation and courts prefer them to estimates constructed after the breach. *See id.*

⁷⁹ *See id.* at 945. Sometimes even using a variety of proof methods, including expert testimony, will prove insufficient to satisfy a court. In *AGF, Inc. v. Great Lakes Heat Treating Co.*, 555 N.E.2d 634 (Ohio 1990), for example, a new business contracted with AGF to purchase a furnace capable of treating approximately five hundred pounds of metal parts per hour. *See id.* at 636. The furnace never operated adequately at the original design rate. *See id.* In its contract action, Great Lakes offered testimony on lost profits due to the failed equipment. *See id.* at 639–40. A customer testified his company had agreed to give Great Lakes as much business as it could handle and his company could "very easily" provide Great Lakes with enough work to run the furnace around the clock. *See id.* at 640. However, the customer provided no specific quantities of work already performed for him or work that could be performed by Great Lakes in the future, nor did he indicate the price

IV. THE ECONOMIC MODEL

Although courts abandoned the traditional new business rule in an effort to reach fairer results in contract cases, proving expectation damages remained problematical. Generally, parties have not used the sophisticated econometric tools available to prove loss. Testimony by forensic experts in the stillborn enterprise case would increase the reliability of estimates for the sales, costs, and operating performance variables to within acceptable ranges. A consistent application of historical and prospective estimation techniques would fulfill the courts' charge to reach damage conclusions with reasonable certainty.

The current research on estimating lost profits for stillborn enterprises identifies three approaches to measurement of loss by a failed new venture.⁸⁰

A. *Investment Approach*

This approach measures out-of-pocket loss based on the actual costs incurred in undertaking a new venture.⁸¹ Damages are based on an accounting of these costs, making no allowance for the actual value of the business based on projected success or failure of the venture.⁸² The expert does not consider the economic value of the business (had it succeeded) or the liquidation value (had it failed).⁸³ This approach considers the loss as the sum of the dollar costs incurred, but it does not consider the potential return on the entrepreneurial effort. As is apparent, the investment approach underestimates loss.

B. *Opportunity Approach*

By comparison, the opportunity approach potentially overestimates loss. It is based on the lost opportunity of the unsuccessful venture, using hoped-for

for the work. *See id.* A certified public accountant estimated Great Lakes' lost profits based on review of financial statements and other documents from a company in a similar type of business, as well as industry statistics taken from a recognized textbook in the area. *See id.* The court declined to consider this witness an expert in the heat-treating business, and noted that none of the documents relied on were ever offered into evidence, including the business records of similar businesses. *See id.* Finally, Great Lakes' president testified as to the average price received per part treated, and, to estimate lost profits, he used a simple calculation of subtracting expenses from expected revenues based on that price. *See id.* Here again, the court noted that none of Great Lakes' business records were submitted into evidence to substantiate its claims. *See id.* The court implied, however, that the extent of plaintiff's evidence, even if available in the record, was insufficient to meet the "reasonable certainty" standard for awarding lost profits. *See id.*

⁸⁰ *See* Jeffrey C. Boddington, *Appraising the Profits Lost by a Failed New Venture*, J. FORENSIC ECON., Winter 1990, at 7.

⁸¹ *See id.* at 8.

⁸² *See id.*

⁸³ *See id.*

sales, profits, and operating conditions.⁸⁴ The damages are the expected return on the investment, including the lost profits, of the stillborn enterprise.⁸⁵

One significant limitation of this approach is that it considers only the expectations of the injured party at the time of its investment. It does not consider the *achievability* of the business plan on which the return-on-investment estimate is based. It analyzes data during a fixed period, without considering varying operating conditions and changes in the market.

C. Outcome Approach

When an expert uses established techniques of econometric analysis, the outcome approach may be the most accurate method of estimating lost profit. It is based on the projected outcome of the stillborn enterprise, but for the actions of others, using *all* the information available at the time the estimate of damages is made.⁸⁶

The outcome approach employs all available information to predict what would have happened to the venture.⁸⁷ Data conventionally considered by economists in preparing econometric analyses of market conditions and company economic profiles include: (1) the economic, financial, industry, and market conditions facing the new business; (2) the competitive circumstances facing the venture; (3) the financial and operating performance of enterprises or businesses similar to the stillborn enterprise; and (4) the ability of the venture to succeed.

The outcome method measures the “scenario of experience-to-date” of the stillborn enterprise by considering all relevant factors affecting the venture, but for the actions of others.⁸⁸ When data is available and its use is feasible, this approach provides a comprehensive basis for determining the extent of damages from lost profits. Such estimates of enterprise damage considers the amount of the investment made in the venture, the expected return on that investment as expressed in the business plan, and the achievability of the business plan in light of management’s ability, as well as external economic, competitive, and financial conditions.

The consideration of the appropriate economic, financial, industry, and market conditions may require large amounts of data on specific external indicators of industry and market performance. (“External indicators” refers to measures not available in the books and records of the enterprise.) These indicators may be based on information reported to financial, governmental, industry, or rating agencies.⁸⁹

⁸⁴ See *id.* at 9.

⁸⁵ See *id.*

⁸⁶ See *id.* at 10.

⁸⁷ See *id.*

⁸⁸ *Id.* at 12.

⁸⁹ Comprehensive reviews of these sources may be found in LITIGATION SERVS. HANDBOOK: THE ROLE OF THE ACCOUNTANT AS EXPERT WITNESS, (Peter B. Frank et al.

The evaluation of competitive circumstances requires identification of comparable financial and marketing information and operating characteristics for firms that would have been viable competitors with the stillborn enterprise. The selection of the appropriate criteria for product and market categories must accompany the evaluation of the financial and market data needed to conduct the competitive analysis.

The assessment of the projected financial and operating performance requires an understanding of the underlying business plan for the stillborn enterprise. The business plan may involve formal written documents, preliminary financial projections, marketing plans, minutes and memos of management meetings, and interviews with the principals. The economist must analyze estimates of sales volume, costs and profits, the ability of management to achieve the plan, and the availability of capital to fund the plan. This may require analysis of information on similar types of ventures.

The traditional procedure used with the outcome approach bases the estimate of damages on a single scenario; it assumes, therefore, that each of the variables in the model have the same probability of occurrence. As with other methods of damage calculation, there are accounting issues, such as the accounting conventions, level of audit reliability, and the historical consistency that can affect the usefulness and reliability of the financial data.⁹⁰

V. TWO SCENARIOS

We will refer to two stillborn enterprise scenarios to illustrate the operation of the outcome analysis using an econometric model. These two cases and mathematical illustrations are blends of real studies used in litigation between similar parties.

A. Sigma Environmental Services (SIGMA) provides exterior commercial and residential structure cleaning services. It entered into an agreement to distribute a specially formulated chemical for weather-related stain removal and was granted exclusive distribution rights to the chemical for the United States by the manufacturer, Environmental Chemical Products (ENVIRON). SIGMA planned to market the cleaning process using the special chemical through a network of distributors and servicers.

Subsequent to the agreement, ENVIRON began selling the chemical to other U.S. distributors. SIGMA brought a breach of contract action against ENVIRON, seeking damages based on the lost sales and profits that would

eds., 1990); TIM POWELL, *ANALYZING YOUR COMPETITION: ITS MANAGEMENT, PRODUCTS, INDUSTRY, AND MARKETS* (3d ed. 1992); and SHANNON P. PRATT, *VALUING A BUSINESS: ANALYSIS AND APPRAISAL OF CLOSELY HELD COMPANIES* 173 (2d ed. 1989).

⁹⁰ The determination of the appropriate discount rates used in stillborn enterprise damage analysis presents some interesting issues relating to the selection of the risk adjustment factor to be combined with the other elements in the Capital Asset Pricing Method (CAPM). See, e.g., J.H. Schlit, *A Rational Approach to Capitalization Rates for Discounting the Future Income Stream of a Closely Held Company*, FIN. PLANNER, Jan. 1982, at 58; see also PRATT, *supra* note 89, at 195.

have been made had the contract been honored.

B. Acme Lawn Products (ACME) is a national manufacturer of lawn care products including seed, fertilizer, and pesticides. It entered into a contract with Scandia Lawn Care (SCANDIA) to provide ACME products to the Scandinavian market. The contract included promises by ACME to provide assistance in marketing, product development, and limited local manufacturing. During the initial planning stage, ACME was unable to provide all the promised assistance. SCANDIA brought a breach of contract action against ACME seeking damages based on the lost sales and profits that would have been made in the Scandinavian market under the contract.

In these two illustrations, it is the task of the forensic economist-accountant team to value the lost sales and profits suffered by SIGMA and SCANDIA as a result of the contract breaches. This requires an assessment of the market size, the market shares of the current competitors, and the ability of SIGMA and SCANDIA to operate effectively in the market had contract obligations been fulfilled.

VI. ISSUES IN ESTIMATING LOST PROFITS TO A STILLBORN ENTERPRISE

In order to estimate loss to a stillborn enterprise, the forensic economist and the legal accountant must evaluate the competitive conditions faced by the failed business and analyze its projected performance by estimating sales volume, ability to deliver, capital availability, managerial ability, and incremental costs.

A. *Evaluating Competitive Activity*

The experts must determine the competitive conditions faced by the stillborn enterprise. The key issues conventionally considered by economists in preparing studies of competitive market conditions and company competitive analyses are: (1) the definition of the product-service category provided by the stillborn enterprise; (2) the definition of the market segment or geography served by the stillborn enterprise; and (3) the measurement of the market share.

The definitions of product-service category and market segment have been part of the antitrust economic literature for many years.⁹¹ It is complicated, however, to apply these traditional measures in stillborn enterprise matters. For example, in the SIGMA case, market issues would require separate consideration of the market for the specialty chemical and the market for removal service. This is accomplished using a cross-sectional regression model of available economic and demographic data.

In order to perform this evaluation in the SIGMA matter, data on the appropriate indicators—including climatic conditions, municipal financial budgets, income measures, and population density—would be gathered for the 100 largest cities, using Metropolitan Statistical Area (MSA) data in the United

⁹¹ See Rubinfeld, *supra* note 15, at 1069.

States for the years for which SIGMA was claiming damage.⁹² The city demand model would first be estimated for those cities where the services were known to be provided by SIGMA or its competitors. Coefficients from the model would then be applied to the remaining MSA-defined cities. The general form of the individual city demand function would be:

$$SD_n = \Sigma(a + DD_{nt} + MD_{nt}/100MD_t + Y_{nt}/100Y_t + PD_{nt}/100PD_t)$$

n	=	100 (cities)
t	=	3 (years)
SD _n	=	Expected demand for removal service in City n
a	=	intercept
DD _{nt}	=	Degree Days over 85
MD _{nt}	=	Municipal Maintenance Budget for City n each year t
100MD _t	=	Municipal Maintenance Budget for all Cities each year t
Y _{nt}	=	Per Capita Income for City n each year t
100Y _t	=	Per Capita Income for all Cities each year t
PD _{nt}	=	Persons per Square Mile in City n each year t
100PD _t	=	Persons per Square Mile in all Cities each year t

These indicators are weighted and ranked to form an index value for the cities in the survey. The individual city demand index values are compared to the values in the cities where the service was already provided successfully. The competitive market was then defined as those cities that met or exceeded the "delivered-cities" index.

Next, the model would be adjusted to determine the remaining cities where the service might not be successful but where a market might exist for the chemical. Chemical-only cities would be defined as those with very large or very small municipal maintenance budgets. The combination of the two market estimates provide a basis for estimating market shares for both the service and product components and lost sales for each component.

Although the definitions of product and market segment are primarily an economic function, the measurement of market share requires an understanding of the stillborn enterprise's and the competitors' planned or actual financial performance. Reported sales can be affected by industry practices regarding

⁹² The Bureau of Economic Analysis, Department of Commerce provides MSA data. See U.S. BUREAU OF THE CENSUS, COUNTY AND CITY DATA BOOK (12th ed. 1994) (published annually as a supplement to the Statistical Abstract).

returns, discounts, and allowances. Seasonal and cyclical patterns may also affect terms of sale and pricing policies, especially when the analysis is conducted at the monthly or quarterly level.

Reported sales would be a key issue in the analysis of lost sales in the ACME matter. The seasonal nature of the demand for lawn care products creates a set of trade practices that encourages retailers to stockpile products prior to the peak season. Such practices include dating, discounting, liberal post season return policies, and extended payment terms. Adjusting for actual timing of sales requires estimation of accounting record sales with adjustment for accounts receivable lags.

The spread between list and selling prices varied so greatly from pre to post season that an understanding of the intra-year variation would be essential to cash flow assessment. The accounting perspective considered the cash flow requirements necessary to achieve market penetration for various time periods and levels of sales.

B. Analyzing Projected Performance

The outcome approach provides an advantage in the analysis of the business planning process for the stillborn enterprise's lost sales and profits. The business plan's treatment of sales volume, productive capacity and scheduling, costs, capital, and accounting conventions are key issues. In addition, the experts must assess management's ability to execute the business plan. Evaluating the plan requires simultaneous review of projected sales volumes and impacts on capacity, costs, and capital. The following sections describe how the outcome approach addresses these issues.

1. Estimating Sales Volume

The traditional approaches economists use to estimate sales volumes for on-going concerns are of limited value with the stillborn enterprise because of the absence of a historical basis for the estimate of loss. Traditional approaches use different tests to discern the breach's effects.

"Before and After" compares sales before and during the period alleged to have been affected by wrongdoing. This approach is sometimes inappropriate for stillborn enterprises because the economist must assume that the "before" condition experienced sales which may not have been sustainable or representative.

"But For" compares the expected sales forecasted using historical sales correlated with market, economic, and competitive conditions to the actual sales achieved. Unless comparable data are available for a similar venture with like market and production characteristics, this approach has limited applicability in a stillborn enterprise situation. The useful component of this approach, however, is the correlation between economic and market factors and the actual sales of related enterprises.

"Same As" compares the expected sales forecasted using historical data

and an index of sales performance for similar companies to the actual sales achieved. This approach also is often inappropriate for stillborn enterprise conditions because the economist again must assume that the pre-damage period had sales that may not have been sustainable or representative.

"Market Share" compares the expected sales forecast, using historical company market share, to the actual sales achieved. This approach requires an estimate of market share often not available for stillborn enterprises because these ventures may not have existed long enough to establish a market share.

The limited application of the traditional methods for a stillborn enterprise's sales volume estimation suggests that more eclectic approaches should be adopted incorporating elements of these traditional methods. Since each stillborn enterprise's business plan is unique, a specific formula cannot be created. Instead, we provide a hierarchy of data sources that can be relied on to project a stillborn enterprise's sales volumes. This hierarchy does not imply that one source is superior, but rather arrays the sources in "certainty" terms. From high to low certainty, the types of data sources include:

- a. historical sales of the stillborn enterprise during start up (with appropriate adjustments);
- b. historical sales of similar enterprises (assuming a similar time period);
- c. historical sales of the industry with similar enterprises (assuming a similar time period);
- d. relationships of industry sales to appropriate economic or financial indicators;
- e. estimates of achievable sales volume or market share made by industry experts;
- f. estimates of achievable sales volume or market share made by management of similar enterprises; and
- g. estimates of achievable sales volume or market share made by stillborn enterprise's management.

The ACME-SCANDIA case provides an interesting example of this eclectic approach. The facts of this case lend themselves to a hybrid strategy using a variety of data sources. ACME had shipped initial trial quantities of selected lawn care products it believed were suited to the Scandinavian market prior to breaching the contract with SCANDIA (data source a). Some of the products, well suited to the environment, sold out quickly. Others failed to meet market needs. SCANDIA had indicated that minor modifications to these products would produce significant sales results. An estimate of potential lost sales for the successful products could be created using sales of similar products (data source c), achievable market shares for new entrants (data source e), such as ACME, and overall market growth.

Available industry-economy relationships (data source d) form the basis of estimates of total market size. The approach would employ a market share formula to project sales to the end of the damage period. It then would develop historical competitors' market share penetration curves and combine them to yield an overall market penetration estimate. After adjustments for imported products and brand-image awareness, the final sales estimates would be

completed. Coefficients for the formula could be derived from known company sales of similar products which are then grouped by their penetration percentage. The general form of the formula is:

$$SL_t = (O/GDP)_t + CP_t + (I/O)_t + SOV_t$$

SL_t	=	Sales (\$) of ACME in year t
t	=	8 (years)
O_t	=	Output of the Industry in year t
GDP_t	=	Gross Domestic Product in Markets served in year t
CP_t	=	Composite Penetration percentage in year t
I_t	=	Imports of similar products in year t
SOV_t	=	Share of Advertising for similar manufacturers in year t

These estimates would be compared to the sales estimates prepared by SCANDIA. This comparison would serve as the basis for the evaluation of the lost sales.

2. *Assessing Ability to Deliver*

Estimates of sales volume, of course, are sensitive to the ability of the stillborn enterprise to deliver. Capacity issues are relevant in the projection of potential sales for the on-going concern as well as the stillborn enterprise, but the former has had an experience upon which to perform the calculation. Management of an on-going concern knows what its facilities can accommodate. It has dealt with the labor force, suppliers, and distribution systems and, with some degree of accuracy, can factor these items into a sales projection. The stillborn enterprise, on the other hand, has not yet addressed these items on an on-going basis.

The application of the outcome approach includes consideration of the consequences of these capacity aspects of the stillborn enterprise and tailors the net profit calculations to reflect a reasonable cost to produce and deliver. One might conclude from this exercise that despite favorable market conditions, customer demand, and competitive forces, the stillborn enterprise could not produce and deliver the quantity of products described by the business plan.

A more common conclusion might be that one or more required elements of the stillborn enterprise's business plan is absent or at insufficient capacity to handle contemplated demand levels. In these instances, it might be perfectly acceptable to outsource (purchasing parts, components, or subassemblies from other producers) or rely on contractors and assemblers. To the extent these activities increase the cost to the stillborn enterprise, a revision of the anticipated profit percentages, and/or selling price would be required.

The outcome approach validates market-driven sales projections by addressing the ability to deliver the products for sale. Some of these routine business functions which need special attention in the stillborn enterprise environment include:

- a. physical capabilities of the plant as measured by size, volume, machinery technology, and storage facilities;
 - b. delivery systems and distribution networks;
 - c. manpower capacity in direct labor, sales force, and administrative support; and
 - d. policies, procedures, and technology necessary to support the enterprise.
- Without validating the stillborn enterprise's ability to deliver, the lost sales analysis is vulnerable.

In the SIGMA-ENVIRON case, the company had projected dramatic growth in demand for the chemical and the service during the damage period. SIGMA planned to distribute its services through its dealer network. Each dealer would purchase the necessary equipment, supplies, training, and marketing support from SIGMA. A delivery timed to a dealer's request would have required substantial chemical inventory investment. Cost and capacity issues for SIGMA would be accounted using the model of end-user service demand. The issues would include:

- a. the lead time necessary to order chemicals from ENVIRON;
- b. the ability of ENVIRON to produce at higher volumes in future years;
- c. SIGMA's warehouse capacity; and
- d. the administrative support capability based on the revenue and processing requirements for dealer network demands.

The original business plan did not contemplate increasing demand for regional storage and distribution facilities or back office support. The outcome approach would consider the high cost of central distribution and support, while factoring in a solution—dispersing this function.

3. Capital Availability

Evaluating a stillborn enterprise's projected performance and capacity to deliver includes an assessment of capital requirements and availability. Notwithstanding cash payments by the owners, the operations and obligations of the stillborn enterprise create a demand for capital. Although this also may be an issue for the on-going company, the effects of inadequate financing may be more serious to the vulnerable stillborn enterprise. The viability of the venture might turn on its ability to bear the carrying costs of inventory and aging receivables in addition to other working capital requirements of the operation.

The ACME-SCANDIA case demonstrates these issues. The seasonal production cycle problem was compounded by the perishable nature of the product's raw materials. Lawn seed components are natural products and have a limited shelf life. The chemicals also had a limited life once they were combined into appropriate mixtures. Finally, the components had limited use in

other regional markets once mixed for a particular geography. Thus, ACME's condition required careful cash flow planning and borrowing schedules.

Seasonal borrowing patterns would require a special analysis of ACME's financial capacity. Considering the factors described above, the econometric model would relate the level of borrowing to the amount of raw material purchases and to the final sales estimate. This model would permit a realistic assessment of the company's ability and the costs required to serve a new foreign market.

The cost of capital to a venture is determined by considering both the debt and equity that can be raised. Traditionally, new ventures rely on equity capital contributed by founders and venture underwriters. The economist must consider the debt-equity ratio in calculating net profit, using information about the capital markets supplying the funds combined with an understanding (supplied by a legal accountant) of company-specific demand for funds.

4. Management Ability

Evidence of the management's ability to execute the business plan is a key concern in stillborn enterprise damage estimation. This endeavor would include consideration of the relevant credentials of the management. Although experience in the industry would be desirable, functional skills must also be considered.

C. Estimating Cost and Profit

Traditional approaches accountants use to estimate lost net profits based on a given sales level involve a study of fixed and variable costs. These approaches analyze how much net profit would be generated from the incremental sales which would have occurred over and above the sales actually made. Merely looking at the net profit percentages of the stillborn enterprise, actual, planned, or those of comparable companies, answers the question of net profit percentage for total sales, not net profit on incremental sales. As mentioned earlier, capacity issues could not only affect the projected sales levels, but also the cost of the product or service. Therefore, estimating costs and net profits of stillborn enterprises requires a study of incremental costs.

Incremental or marginal costs are the change in aggregate costs that accompanies a change in units of output or a change in factors affecting cost, such as style, size, or area of distribution.⁹³ Variable costs, which by definition vary with sales volume, are the most obvious cost elements subtracted from gross sales to arrive at gross profit. Fixed costs, on the other hand, do not vary with sales volume, but are costs of doing business, such as rents and executive salaries. Few categories of cost are considered by most cost accountants to be truly fixed. At some point in its life, a company outgrows its facilities (usually

⁹³ See generally KOHLER'S DICTIONARY FOR ACCOUNTANTS 257, 318-19 (W.W. Cooper & Yugi Ijiri eds., 6th ed. 1983).

considered a fixed cost) and must expand. A larger productive capacity will increase fixed costs but achieve the next level of sales. Any analysis of fixed and variable costs must consider such incremental costs which may be required to produce and deliver sales at anticipated levels.

The dissection of the profit and loss statement into the fixed and variable components and the identification of additional incremental costs is much more than a bookkeeping exercise. The expert must have a clear understanding of the nature of each line item of expense, its relationship to varying sales volumes, and the way the enterprise does business.⁹⁴

The ACME-SCANDIA case illustrates the importance of this understanding. SCANDIA management prepared a summary level profit and loss statement (P&L) with the understanding that it would be used for calculating lost profits from the lost sales:

PROFIT AND LOSS STATEMENT
(Prepared by SCANDIA Management)

	<i>Amount</i>	<i>Percent</i>
SALES	\$1,000	100%
COST OF SALES	\$400	40%
GROSS PROFIT	\$600	60%
SELLING, GENERAL AND ADMINISTRATIVE (S,G&A) EXPENSES:		
SELLING EXPENSE	\$150	15%
OFFICE EXPENSE	\$200	20%
ROYALTY EXPENSE	\$100	10%
TOTAL S,G&A	\$450	45%
NET PROFIT	\$150	15%

Based on demand and competitive forces, an economist could estimate that sales could have grown from \$1,000 in the first year to \$2,000 in the second year, \$3,000 in the third year, and \$5,000 in the fourth year. Based on

⁹⁴ An economist must be cautious in reading and relying on the work of third party accountants. Developments in accounting procedures have imposed certain definitions on "forecast" and "projection" which render them asynonymous. The economist must understand the seemingly subtle differences in the work done and responsibility accepted by the accountant who prepared the financial statement. Determining whether the restrictions and guidelines of the American Institute of Certified Public Accountants (AICPA) even apply to the financial statements in question is not a simple matter. Much of the AICPA-mandated structure is designed to protect the reader of financial statements from reaching misleading or inaccurate conclusions. This presumes that the reader is unable to question the preparer on exactly what was done, what was assumed, and who made the assumptions. (In litigation, however, the reader can question the preparing accountant, so the same level of protection might not be needed.) The point is that not only do the circumstances of the company and the industry affect the analysis, but a variety of factors warrant caution when relying on prospective financial statements prepared by third party accountants.

information obtained through pretrial discovery and discussion with SCANDIA management, the expert economist and accountant could conclude that:

a. SCANDIA management intended to produce some of its finished goods itself and buy the remainder from an outside vendor. The percentages of the made and bought goods would remain constant through the first three years. In the fourth year, management believed it would be capable of meeting the demand for its goods itself, thereby eliminating the outsourcing of finished goods.

b. Estimated fourth year production levels would require a concurrent increase in machinery, power consumption, office space, office staff, and computer capacity.

c. Royalty payments equivalent to 3% of sales would be made annually with a minimum payment of \$100 each year.⁹⁵

D. Data Needs

Some of the data needs of the outcome approach can be met by using currently available information technology. Recent developments have reduced the practical problems of identifying and analyzing large amounts of economic, financial, industry, and market data needed to estimate damages.⁹⁶ On-line electronic databases contain internally consistent data on economic and market conditions. These data are made available on many popular networks by a number of public and private enterprises which review and adjust the information to ensure accuracy and consistency.⁹⁷

Standardized sources for intra- and inter-industry financial data that adjust for accounting and reporting differences among companies are also available. These data may be obtained from private companies that review and adjust the information to ensure accuracy and consistency across time and industry.⁹⁸

⁹⁵ In the actual case, after conversations with SCANDIA management and independent verification, the economist identified discrete elements of each item on the summary profit and loss statement. It was determined which costs associated with those items would be fixed, variable, or both in light of the projected increase in sales. The revised P&L indicated that the 15% net profit originally presented by SCANDIA management was not a fair representation of the net profits that could have been expected in an environment of increasing sales. The incremental sales became more profitable as fixed costs were covered by earlier sales.

⁹⁶ Generally Accepted Accounting Principles (GAAP) allow an entity some latitude in the way it reports its costs and profits. Various accounting conventions, all acceptable within GAAP, could produce different impressions of actual events. For example, the valuation of inventory on the LIFO (Last In, First Out) method and the FIFO (First In, First Out) method could yield different "Cost of Goods Sold" amounts, which in turn would alter the net profits of an entity. It is important to appreciate the conventions used in assessing these data.

⁹⁷ For example, Wharton Econometric Associates, Data Resources Incorporated, and Haver Analytics, Inc., all provide computer-based economic indicators to their subscribers. Government agencies also provide databases via the Internet.

⁹⁸ Value Line Investment Services, Moody's, Standard and Poors, and Robert Morris

VII. CONCLUSION

Estimating lost profits suffered by an on-going enterprise requires the analysis of the past performance of the enterprise alleged to have been damaged. Estimating lost profits for entities damaged prior to actual full-scale operation, the stillborn enterprise, presents greater difficulties because of the absence of this past performance data. Until recently, courts viewed these difficulties as insurmountable, denying recovery in all cases. Moved by claims of the unfairness of the absolute bar, courts jettisoned the *per se* rule in favor of a fact-sensitive analysis on a case-by-case basis. Damage estimation techniques remained relatively unsophisticated, however.

Today, there is no excuse for a court to accept less than the best expert testimony using sophisticated econometric tools to estimate damages—expert testimony that combines the skills of a forensic economist and a legal accountant. The key judicial finding—the market viability of the stillborn enterprise—must be based on the financial and accounting aspects of the damage estimation. The economist and accountant work together to provide the court with the product of the best available methodology. These combined skills help reduce the level of uncertainty arising from multiple sources of variability as well as the risks that result from the need to project amounts not directly derived from the books and records of the stillborn enterprise. An attorney, working with the forensic economist and the legal accountant, must understand their underlying assumptions and methodologies in order to translate the econometric models into evidence useful to the trier of facts.

As the law moves, so do the sciences, both social and physical. Sometimes science propels change. At other times, it facilitates change catalyzed by policy concerns. In either case, the stillborn enterprise case presents an example of where law and science must work in tandem to improve the product of our justice system.